APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,878	03/16/2000	GUSTAVO FERNANDEZ	P00.0449	3536

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EXAMINER
D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
2683	23

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 January 2004</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2-10, 12-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>14</u> is/are allowed.

6)☒ Claim(s) <u>2-10,12,13 and 15-38</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 23

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 1-20-04 have been fully considered but they are not persuasive:

1. After reviewing the claims, the examiner notes that the dependent claims are too broad by themselves to be objectable, but a combination of them may provide a more favorable outcome. For example, rewriting claim 1 to include claims 6-10 would separate the application from prior art cited. Rewriting of other independent claims with similar content would help as well.

2. The argument regarding an "accept" message does not sway the examiner since "hand-shaking" is well known in the art to provide ACK/NAK acknowledgements as deemed necessary by the designer – Johnston does teach requesting an identifier which would be acknowledged for security reasons if the operational need requires it.

3. The combination of prior art does teach the applicant's limitation regarding transmitting data (eg. an acknowledgement) via a local connection (which is not the wireless phone RF connection but rather via base unit contacts).

4. The motivation statement provides a valid reason as to why one skilled would use the local connection – eg. to transmit an acknowledgement not via the RF voice channel and/or for security reasons so as not to broadcast the data.

5. The prior art combination teaches storing means which provides motivation to memorize/store data used in operating the phone system which reads on the applicant's claim.

6. Lastly, the "steps" outlined in various claims, while extensive, continue to read on the prior art cited since these steps are necessary for the phone system to operate via the patented design.

7. The newly added claims are rejected as shown below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

<u>Claims 2-5, 8-10, 12-13, 15-19, 22-26, 28-31, 33-38</u> rejected under 35 U.S.C.

103(a) as being unpatentable over Johnston et al. U.S. Patent 5,787,360, Saegusa et

al. U.S. Patent 4,864,599 and Haraguchi US Patent 4,979,205 (hereafter referred to as

Johnston, Saegusa and Haraguchi).

As per **claims 12, and 15 <u>and 26, 37</u>** Johnston teaches a method for logging a
mobile unit on at a base station comprising the steps of:
recognizing a logon situation wherein at least one of the mobile unit
and the base station determines that the mobile unit is not yet logged on at the
base station (C5, L34-36 and L40-42);
generating an identifier (C5, L49-52 – ID is generated);
transmitting the identifier via a radio connection between the mobile
unit and the base station (C5, L49-52 – ID is sent);
<u>transmitting a request for</u> identification with an acknowledgment signal via
~~transmission over~~ the radio connection between the mobile unit and the base
station (C5, L40-42 – Request for ID and C5, L49-50 – acknowledgement sent)
local connection (a connection between mobile unit and base station only
operates in a relatively short-range distance (C5, L21-23). So this limitation is
interpreted to be a local connection)
but is silent on transmitting the acknowledgment signal separate from the radio
connection <u>AND echoing back the identifier via the radio connection between the mobile
and base station and memorizing the received echoed back identifier</u>
<u>acknowledging the receipt of the echoed back identifier via the radio connection
between the mobile and base station.</u>
Saegusa teaches the transmittal of the product ID number from a cordless unit to
an access unit/base station as an acknowledgement that the cordless phone has
correctly received the "setup signal" (C3, L48-67 to C4, L1-10)<u> and storing of the
identification numbers in electrically EPROM (abstract).</u> This verification operation is
required to avoid interference (C1, L11-23) from other wireless devices. <u>Saegusa
teaches transmission of ID number(s) AND verifying that they were correctly received
which reads on echoing back/acknowledgement. The examiner notes that the "echo
back" procedure is merely an added step furthering the security process which is not
novel (eg. a design choice – there is a trade-off between how long it will take to
authenticate a user versus how much security checking is required). There can be</u>

<u>more steps or less steps regarding how the system authenticates the user, each of</u>
<u>which would read on the claimed invention except for the fact that one uses more/less</u>
<u>security checking.</u>

Haraguchi teaches a data connection (eg. local connection) between the phone and the cradle/charging contacts that allows for data transmission (abstract).

With further regard to claims 26 and 37, Johnston teaches use of an identifier which reads on a provisional identifier (C5, L49-52).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the cordless phone sends an acknowledgement to the base station separate from the radio connection, to ensure that the base station knows the cordless phone has received the registration information.

As per **claims 2 and 16 and 28**, Johnston teaches the method according to claim 12, wherein the local connection is electrical (eg. RF or wired) [C5, L36-38], infrared or "other communications technology" (C17, L15-17) which would allow for the group consisting of a magnetic connection, an inductive connection and an optical connection.

As per **claims 4 and 18 and 30**, Johnston teaches the method according to claim 12, the radio unit contacts the home base station via RF or temporary wired connection (which would be a digital/binary connection) (C5, L34-39) [eg. wherein a binary signal is transmitted via the local connection]. Note that the RF link, for example, would also have two (binary) states through the use of amplitude/frequency modulation.

As per **claims 8 and 22 and 33**, Johnston teaches the method according to claim 12, **but is silent on** wherein the acknowledgment signal is generated by the mobile unit and is transmitted to the base station.

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the "setup signal" (C3, L48-67 to C4, L1-10). This verification operation is required to avoid interference (C1, L11-23) of other wireless devices.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that an acknowledgment signal is generated by the mobile unit and is transmitted to the base station, for situations that require the base station to know if the mobile unit received the identification number or to retransmit it again.

As per **claims 9 and 23 and 34**, Johnston teaches the method according to claim 12, **but is silent on** wherein the acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection.

One skilled in the art of communications knows that it is customary to use timers/time-out periods for situations that require logon, authentication, etc.. This eliminates the possibility of endlessly waiting for a positive acknowledgement. Many

automated systems (ie. ATMs, Voicemail, IVR's, etc.) provide a timer that will cancel a session should a response not occur within a specified time limit (ie. the user does not provide his/her ATM/Voicemail PIN or IVR account number). Hence, one skilled in the art would use a predetermined time interval to repeat the acknowledgement process should it fail. [Note that Johnston does allude to excessive delay for the propagation of voice signals, C13, L5-24].

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection, to eliminate possibility of an endless wait state during login/authentication.

As per **claims 10 and 24 and 35**, Johnston teaches the method according to claim 12 **but is silent on** further comprising the step of: transmitting logon data via radio connection.

Johnston does teach the invention supporting computing devices such as mobile laptop computers (figure 1, #18) which can connect to a LAN interface (C3, L45-52) for data communications. One skilled in the art of computer networking knows that a user must logon to a LAN before it can send data via the LAN. Hence, logon data would be transmitted via the radio connection as the user logs-in to the server.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that logon data is transmitted via the radio connection, to provide a mobile computer/PDA user the ability to logon to a LAN and transmit/receive data.

As per **claims 13 and 25 and 36 and 38** Johnston teaches a communication system having at least one mobile unit and at least one base station (figure 1 shows phones #14 and base stations #12), comprising:

a means for recognizing a logon situation (C5, L34-40 teaches that a radio unit cannot operate before it subscribes to a base station as its home base station);

a means for generating an identifier (C5, L49-52 – base station's control unit sends identifier to mobile unit after it requests one);

a radio connection between the at least one mobile unit and the at least one base station (C5, L40-42 – radio unit contacts base station for identifier);

a local connection separate from the radio connection between the at least one mobile unit and the at least one base station (C5, L36-37 – mobile unit must be "within range" of the base station);

a first means for transmitting the identifier via radio connection (C5, L49-52 – base station controller uses radio link to send identifier); and

a second means for transmitting a request for identification signal via the radio connection (C5, L40-42 – request for identification); and

a third means for transmitting acknowledgement via the local connection (C5, L36-37 – mobile unit must be "within range" of the base station and C5, L49-52 for transmission of acknowledgement);

But is silent on: (second means) with an acknowledgment <u>a fourth means for echoing back the identifier via the radio connection between the mobile and base station and memorizing the received echoed back identifier</u>

<u>A fifth means for acknowledging the receipt of the echoed back identifier via the radio connection between the mobile and base station.</u>

Haraguchi teaches a data connection (eg. local connection) between the phone and the cradle/charging contacts that allows for data transmission (abstract).

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the "setup signal" (C3, L48-67 to C4, L1-10)<u> and storing of the identification numbers in electrically EPROM (abstract)</u>. This verification operation is required to avoid interference (C1, L11-23) from other wireless devices. <u>Saegusa teaches transmission of ID number(s) AND verifying that they were correctly received which reads on echoing back/acknowledgement. The examiner notes that the "echo back" procedure is merely an added step furthering the security process which is not novel (eg. a design choice – there is a trade-off between how long it will take to authenticate a user versus how much security checking is required). There can be more steps or less steps regarding how the system authenticates the user, each of which would read on the claimed invention except for the fact that one uses more/less security checking.</u>

<u>With further regard to claims 36 and 38, Johnston teaches use of an identifier which reads on a provisional identifier (C5, L49-52).</u>

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the mobile sends an acknowledgement separate from the radio connection, to provide 100% verification that the mobile unit received the identification.

As per **claims 3 and 17**<u> and 29</u>, Johnston teaches the method according to claim 12, wherein the mobile radio can be wired to the base station (C5, L36-38) [eg. local connection is an electrical connection] but is silent on the connection being via respective charging contacts of the mobile unit and the base station.

Haraguchi teaches data transmission (eg. sending of identification codes) via the charging contacts of the handset and base unit (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that a data connection can be made via respective charging contacts of the mobile unit and the base station, to provide added security since a phone user must have access to the base unit.

As per **claims 5 and 19**<u> and 31</u>, Johnston teaches the method according to claim 12, wherein the step of recognizing the logon situation is triggered when the mobile unit is placed onto the base station.

Haraguchi teaches the sending of an identification code when the phone is placed in the base unit (abstract). One skilled in the art would use this to trigger a logon situation.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that recognizing the logon situation is triggered when the mobile unit is placed onto the base station, to force the user to be located at a base station which provides added security – ie. the user must gain access to the base unit NOT by an RF link.

Claims 6 and 20 and 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa and Haraguchi further in view of Chiu et al. U.S. Patent 5,500,888 (hereafter referred to as Chiu).

As per **claims 6 and 20 and 32**, Johnston teaches the method according to claim 12, wherein the step of generating the identifier is based upon the IP Address of the base station and a radio unit reference number (C5, L49-56) **but is silent on** includes generating the identifier as a random number.

Chiu teaches a security code that is generated by random number generation (abstract). This design would provide better security than Johnston's system since Johnston merely "randomizes" his ID by using a number which represents the number of phones connected to the base station. One skilled in the art would provide a counter that counts the number of phones attached, to limit said number of phones, in conjunction with a random replacing the number of phones. This would provide better security since the number could be a very large number instead of being limited by the number of phones that can connect to the base station.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identification ID is based upon a random number, to decrease the likelihood of an unauthorized person determining said ID since it cannot be easily guessed.

Claims 7 and 21 and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa and Haraguchi further in view of D'Amico et al. U.S. Patent 5,077,790 (hereafter referred to as D'Amico).

As per **claims 7 and 21 and 27**, Johnston teaches the method according to claim 12, **but is silent on** wherein the identifier is generated by the mobile unit and is transmitted to the base station in the step of transmitting the identifier via the radio connection.

D'Amico teaches secure over-the-air registration of cordless telephones (title) whereby the portable unit (eg. cordless phone) sends the base station a request for registration which comprises the link identification number for over-the-air registration and the portable identification number (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identifier is generated by the mobile unit and is transmitted to the base station, to provide the mobile unit with the choice of selecting its own identifier – eg. may want to keep the same identifier for a period of time.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist on 703-306-0377.

SMD
2-20-04

WILLIAM TROST
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